Backend with Java RoadMap

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Week:1 (Overview)

- Java OOPs Concepts
- File Handling
- Exception Handling
- MultiThreading
- Tools and IDE used

Week:2 (Spring Introduction)

- Maven
  - Lifecycle
  - Plugins, Dependencies
  - MVN repository
- Why Spring ?
- Dependency Injection & IOC
  - Injection Methods(Setter,Constructor)
  - Beans , Bean Lifecycle

Week : 3 (Configurations)

- XML & Annotation Configuration
  - Autowiring , Bean Annotations
- Java Annotations
- Qualifiers
- Custom Annotations

Week:4 (Spring Web Module)

- Spring MVC setup
- Tomcat Connection
- Servlets & View Resolver
- Controllers
- JSP Introduction
- Model & Model Attributes
- Simple Spring MVC Starter Project

Week:5 (Forms , Validation)

- JSP – JSTL Tags
- Form – Tags
- Form Validation
- Custom Validation

Week:6 (Intro to Spring Boot)

- Spring Boot
  - Need
  - Advantages
- Spring Boot Initializer
- Simple Spring Boot Starter Project
- Migrating to Spring Boot

Week:7 (Database)

- Integrating Database
- SQL & MySQL
  - Queries
  - Drivers Setup
- JDBC , JPA
- Introduction to Hibernate
- Hibernate Configurations / Annotations
- HQL , Hibernate CRUD

Week:8 (Hibernate Mappings)

- DAO's and Service Classes
- One to One
- One to Many
- One to Many Unidirectional
- Many to Many
- Lazy vs Eager Loading

Week : 9 (AOP)

- Introdcution to Aspect Oriented Programming
- Spring Security Introduction
  - Creating Custom Login Form
  - CSRF Forgery
  - Password Encryption

Week:10 (APIs)

- Rest API's Overview
- JSON Databinding
- Spring Rest Controller
- POJO's – JSON
- Exception Handling

Week:11 (Thymeleaf)

- POSTMAN
- Spring Rest CRUD Operations
- Introduction to Thymeleaf
- Thymeleaf Security

Week:12 (Project & Deployment)

- Simple Project
- Deployment of Project Methods and Steps
  - Heroku
  - AWS
  - Azure
  - Google Cloud
  - Docker